REMARKS

Applicant has reviewed the Office Action dated July 23, 2001, and the references cited therewith. Claims 1, 58, 63, and 91 are amended, no claims are canceled or added; as a result, claims 1-91 are now pending in this application. Applicant incorporates by reference the remarks already of record in the previous responses.

§102 Rejection of the Claims

Claims 1 - 3, 26, 27, 58, 59, 63, 88, 89 and 91 were rejected under 35 USC § 102(e) as being anticipated by Hill (U.S. Patent No. 5,814,085). The Examiner's burden of establishing a *prima facie* case of anticipation requires, among other things, the disclosure in a single prior art reference of each element of the claim under consideration. *See In re Dillon* 919 F.2d 688, 16 U.S.P.Q.2d 1897, 1908 (Fed. Cir. 1990) (*en banc*). However, Applicant is unable to find any teaching or suggestion in Hill of, among other things, recursively computing a first indicated pacing interval, for a most recent V-V interval (regardless of whether the most recent V-V interval is concluded by a paced or sensed beat) using a most recent V-V interval duration and a stored previously-computed value of the first indicated pacing interval, as presently recited in claims 1, 58, 63, and 91 and, therefore, incorporated into their dependent claims. Instead, Hill apparently requires, among other things, an average of three cycles that precede the cycle in which the most recent depolarization was sensed. (*See* Hill at 3:60-65.) This is not a recursive computation of a first indicated pacing interval. For an illustrative example, where the three cycles averaged by Hill are each concluded by a sensed beat, the computed average of such intrinsic beats would clearly be unaffected by any previously-computed pacing interval. Because Hill does not teach or suggest the claimed recursive technique of computing a first indicated pacing interval, Applicant respectfully requests withdrawal of this basis of rejection.

§103 Rejection of the Claims

Claims 23 - 25, 64 and 67 - 70 were rejected under 35 USC § 103(a) as being unpatentable over Hill (U.S. Patent No. 5,814,085). The Examiner's burden of establishing a *prima facie* case of obviousness requires, among other things, that each and every one of the

recited claim limitations are taught or suggested in the cited prior art reference(s) independent of the teaching in the applicant's disclosure. *See In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); MPEP § 2142. Again, however, Applicant can find no teaching or suggestion in Hill of, among other things, recursively computing a first indicated pacing interval, for a most recent V-V interval (regardless of whether the most recent V-V interval is concluded by a paced or sensed beat), using a most recent V-V interval duration and a stored previously-computed value of the first indicated pacing interval, as presently recited in claims 1, 58, 63, and 91 and, therefore, incorporated into their dependent claims. Instead, Hill apparently requires, among other things, an average of three cycles that precede the cycle in which the most recent depolarization was sensed. (*See* Hill at 3:60-65.) This is not a recursive computation of a first indicated pacing interval. For an illustrative example of the difference, where the three cycles averaged by Hill are each concluded by a sensed beat, the computed average of such intrinsic beats would clearly be unaffected by any previously-computed pacing interval. Because Hill does not teach or suggest the claimed recursive technique of computing a first indicated pacing interval, Applicant respectfully submits that no *prima facie* case of obviousness presently exists for the rejected claims and, accordingly requests withdrawal of these bases of rejection.

Allowable Subject Matter

Applicant acknowledges the allowance of claims 28 - 57 and 90. In the Office Action, claims 4 - 22, 60 - 62, 65 and 71 - 87 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. For the reasons discussed above, however, Applicant believes that the corresponding base and intervening claims are patentably distinct, and respectfully requests reconsideration of such claims.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612 373-6951) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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By their Representatives,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: BOX RCE, Commissioner of Patents, Washington, D.C. 20231, on this 6 day of November, 2001.

GREG HANSON _____
Name Signature